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- 1. A color head-up display, in particular for vehicles, in which the light from a light source (2) is transmitted through an at least partially light-transmitting display (3) and can be projected onto a windshield, wherein a multiplicity of red, blue and green light-emitting diodes (10 12) are arranged without packaging on a common support (16, 17, 19), and wherein a heat-dissipating device (19) for cooling the light-emitting diodes is present.
- 2. The color head-up display as claimed in claim 1, wherein the multiplicity of light-emitting diodes 20 (10, 11, 12) is arranged in the form of a compact array.
 - 3. The color head-up display as claimed in claim 2, wherein the compact array is configured in the form of a matrix.
- 4. The color head-up display as claimed in one of the preceding claims wherein the number of light-emitting diodes of one color is adapted to the spectral sensitivity of the eye and to the spectral efficiency of the diodes.
- 5. The color head-up display as claimed in one of the preceding claims, wherein the compact array has a largely round form.
 - 6. The color head-up display as claimed in one of the preceding claims, wherein the individual light-
- emitting diodes (10, 11, 12) are configured as chip pads fitted on a metallic support material array (9).
 - 7. The color head-up display as claimed in claim 6, wherein in each case at least one bonding wire (15)

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is connected to the chip pad (10, 11, 12) and to the support material array (9).

- 8, The color head-up display as claimed in one of the preceding claims, wherein a plurality of light-emitting diodes (10, 11, 12) are connected in series.
- 9. The color head-up display as claimed in claim 8, wherein a plurality of light-emitting diodes (10, 11, 12) of one color are connected in series.
- 10. The color head-up display as claimed in one of the preceding claims, wherein the at least partially light-transmitting display (3) is configured as a liquid crystal display.
- 11. The color head-up display as claimed in claim 10, wherein the display (3) is a color liquid crystal display, and wherein the light source (2) simultaneously emits red, green and blue light.
 - 12. The color head-up display as claimed in claim 10, wherein the liquid crystal display (3) is a monochrome liquid crystal display, and wherein the individual colors of the light-emitting diodes can be successively switched on and off in a rapid sequence.
 - 13. The color head-up display as claimed in one of the preceding claims, wherein a condenser lens (7) is arranged between the light source (2) and the display (3).
 - 14. The color head-up display as claimed in one of the preceding claims, wherein light from the light-emitting diode (10 12) is reflected by means of one or a plurality of mirrors and is transmitted through the display (3).
 - 15. The color head-up display as claimed in one of the preceding claims, wherein it has one or a plurality of displays (3) and a plurality of light sources (2).

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